

(D) Method 1624 in 40 CFR part 136, appendix A.

(E) Method 1625 in 40 CFR part 136, appendix A.

(F) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 and Section 5.3 of Method 301 in 40 CFR part 63, appendix A.

(iii) Calculations. The average VOHAP concentration (C) on a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (b)(2)(ii) of this section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

where:

C=Average VOHAP concentration of the off-site material at the point-of-delivery on a mass-weighted basis, ppmw.

i=Individual sample “i” of the off-site material.

n=Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Q_i=Mass quantity of off-site material stream represented by C_i, kg/hr.

Q_T=Total mass quantity of off-site material during the averaging period, kg/hr.

C_i=Measured VOHAP concentration of sample “i” as determined in accordance with the requirements of § 63.693(b)(2)(ii), ppmw.

(3) Knowledge of the off-site material to determine VOHAP concentration.

(i) Documentation shall be prepared that presents the information used as the basis for the owner's or operator's knowledge of the off-site material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the source or process generating the off-site material stream; species-specific chemical test data for the off-site material stream from previous testing that are still applicable to the current off-site material stream; previous test data for other locations managing the same type of off-site material stream; or other knowledge based on informa-

tion included in manifests, shipping papers, or waste certification notices.

(ii) If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, an owner or operator may use HAP concentration test data for the off-site material stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A of this part as the basis for knowledge of the off-site material.

(iii) An owner or operator using species-specific chemical concentration test data as the basis for knowledge of the off-site material may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the off-site material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the off-site material is multiplied by the appropriate species-specific adjustment factor (f_{m305}) listed in Table 1 of this subpart.

(iv) In the event that the Administrator and the owner or operator disagree on a determination of the average VOHAP concentration for an off-site material stream using knowledge, then the results from a determination of VOHAP concentration using direct measurement as specified in paragraph (b)(2) of this section shall be used to establish compliance with the applicable requirements of this subpart. The Administrator may perform or request that the owner or operator perform this determination using direct measurement.

(c) *Determination of average VOHAP concentration of an off-site material stream at the point-of-treatment*—(1) *Sampling*. Samples of the off-site material stream shall be collected at the point-of-treatment in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(i) The averaging period to be used for determining the average VOHAP concentration for the off-site material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the off-site material stream but shall not exceed 1 year.

(ii) A sufficient number of samples, but no less than four samples, shall be collected to represent the complete range of HAP compositions and HAP quantities that occur in the off-site material stream during the entire averaging period due to normal variations in the operating conditions for the treatment process. Examples of such normal variations are seasonal variations in off-site material quantity or fluctuations in ambient temperature.

(iii) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the off-site material stream such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the plant site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures in accordance with the requirements specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846 or Method 25D in 40 CFR part 60, appendix A.

(2) *Analysis.* Each collected sample shall be prepared and analyzed in accordance with the one of the following methods:

(i) Method 25D in 40 CFR part 60, appendix A.

(ii) Method 305 in 40 CFR part 63, appendix A.

(iii) Method 624 in 40 CFR part 136, appendix A.

(iv) Method 1624 in 40 CFR part 136, appendix A.

(v) Method 1625 in 40 CFR part 136, appendix A.

(3) Calculations. The average VOHAP concentration (\bar{C}) on a mass-weighted basis shall be calculated by using the results for all samples analyzed in accordance with paragraph (c)(2) of this section and the following equation:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$$

Where:

\bar{C} =Average VOHAP concentration of the off-site material on a mass-weighted basis, ppmw.

i =Individual sample "i" of the off-site material.

n =Total number of samples of the off-site material collected (at least 4) for the averaging period (not to exceed 1 year).

Q_i =Mass quantity of off-site material stream represented by C_i , kg/hr.

Q_T =Total mass quantity of off-site material during the averaging period, kg/hr.

C_i =Measured VOHAP concentration of sample "i" as determined in accordance with the requirements of § 63.693(c)(2), ppmw.

(d) *Determination of treatment process VOHAP concentration limit (C_R).* (1) All of the off-site material streams entering the treatment process shall be identified.

(2) The average VOHAP concentration of each off-site material stream at the point-of-delivery shall be determined using the procedures specified in paragraph (b) of this section.

(3) The VOHAP concentration limit (C_R) shall be calculated by using the results determined for each individual off-site material stream and the following equation: